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Sequence Listing
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<110> Chugai Seiyaku Kabushiki Kaisha <120> Therapeutics for Diabetes Mellitus <130> 021019 <160> 4

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<212> PRT
<213> Homo sapiens

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Glu Ser Lys Lys Pro Pro Ala Lys Leu Gln Pro Arg

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Glu Arg Asn Lys Gly Gln

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<212> PRT

<213 Homo sapiens

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Met Trp Asn Ala Thr Pro Ser Glu Glu Pro Gly Phe Asn Leu Thr Leu

1 5 10 15

Ala Asp Leu Asp Trp Asp Ala Ser Pro Gly Asn Asp Ser Leu Gly Asp

20

25

30

 $\frac{1}{2}$. I

G.1	u Le			ln Le	u Ph	e Pr			o Le	u Le	u Ala	a Gl	y Val	l Th	r Alą
Th	•		35				4					4			
10	г Су 5		ıl Al	la Le	u Ph	e Va 5.		l Gly	y II	e Al	a Gly 60		a Lei	ı Lei	1 Thr
Me	t Le	u Va	l Va	ıl Se	r Ar	g Ph	e Arı	g Gli	ı Lei	и Аг			ጉ ፐክ፣	· Acr	ı Leu
6	5				70	0				75	5				80
Ty	r Lei	ı Se	r Se	r Me 8		a Pho	Sei	r Asp	Let 90		ı Ile	Pho	: Leu	Cys 95	Met
Pro	Let	ı As	р Le			7 T.ei	ı Trr	. Glr			, Dra	Ten			Gly
			10			,	,	105		, Ale	, 110	111			GIY
Asr	Lei	ı Le			s Ter	Phe	. Cla			Cor	. C1	C	110		Tyr
		I 1	5				120)				125			
Ala	Thr	Va	l Le	u Thi	r Ile	Thr	Ala	Leu	Ser	Yal	Glu	Arg	Tyr	Phe	Ala
	130					135	ı				140				
He	Cys	Pho	e Pro	o Lei	ı Arg	Ala	Lys	Val	Val	Val	Thr	Lys	Gly	Arg	Yal
145					150					155					160
Lys	Leu	Val	Пе	e Phe	· Val	Ile	Trp	Ala	Val	Ala	Phe	Cys	Scr	Ala	Gly
				165					170					175	
Рго	He	Phe	· Val	Leu	Val	Gly	Val	Glu	His	Glu	Asn	Gly	Thr	Asp	Pro
			180					185					190		
Trp	Asp	Thr	Asn	Glu	Cys	Arg	Pro	Thr	Glu	Phe	Ala	Val	Arg	Ser	Gly
		195					200					205			·
Leu	Leu	Thr	Val	Met	Val	Trp	Val	Ser	Ser	Ile	Phe	Phe	Phe	Leu	Pro
	210					215					220				
Val	Phe	Cys	Leu	Thr	Val	Leu	Tyr	Ser	Leu	Ile	Gly	Arg	Lys	Leu	Trp
225					230					235					240
Arg	Arg	Arg	Arg	Gly	Asp	Ala	Val	Val	Gly	Ala	Ser	Leu	Arg	Asp	Gln
				245					250					255	
Asn	His	Lys	Gln	Thr	Val	Lys	Met	Leu	Ala	Val	Val	Val	Phe	Ala	Phe
			260					265					270		
Ile	Leu	Cys	Trp	Leu	Pro	Phe	His	Val	Gly	Arg	Tyr	Leu	Phe	Ser	Lys
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Ser	Phe	Glu	Pro	Gly	Ser	Leu	Glu	Ile	Ala	Gln	Ile	Ser	Gln	Tyr	Cys
	290					295					300				
Asn	Leu	Val	Ser	Phe	Val	Leu	Phe	Tyr	Leu	Ser	Ala.	Ala	Ile .	Asn	Pro
305					310					315				320	

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Ile Leu Tyr Asn Ile Met Ser Lys Lys Tyr Arg Val Ala Val Phe Arg.
                  325
                                      330
                                                       335
 Leu Leu Gly Phe Glu Pro Phe Ser Gln Arg Lys Leu Ser Thr Leu Lys
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                                  345
 Asp Glu Ser Ser Arg Ala Trp Thr Glu Ser Ser Ile Asn Thr
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                              360
 ⟨210⟩ 4
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Pro Pro Trp Pro Ala Leu Pro Pro Cys Asp Glu Arg Arg Cys Ser Pro
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                                  25
                                                       30
Phc Pro Leu Gly Ala Leu Val Pro Val Thr Ala Val Cys Leu Cys Leu
Phe Val Val Gly Val Ser Gly Asn Val Val Thr Val Met Leu Ile Gly
     50
                          55
Arg Tyr Arg Asp Met Arg Thr Thr Thr Asn Leu Tyr Leu Gly Ser Met
 65
                      70
                                          75
                                                               80
Ala Val Ser Asp Leu Leu Ile Leu Leu Gly Leu Pro Phe Asp Leu Tyr
                  85
Arg Leu Trp Arg Ser Arg Pro Trp Val Phe Gly Pro Leu Leu Cys Arg
            100
                                 105
Leu Ser Leu Tyr Val Gly Glu Gly Cys Thr Tyr Ala Thr Leu Leu His
        115
                                                 125
Met Thr Ala Leu Ser Val Glu Arg Tyr Leu Ala Ile Cys Arg Pro Leu
                         135
Arg Ala Arg Val Leu Val Thr Arg Arg Arg Val Cys Ala Leu Ile Ala
145
                    150
                                        155
Val Leu Trp Ala Val Ala Leu Leu Ser Ala Gly/Pro Phe Leu Phe Leu
                165
                                    170
                                                         175
Val Gly Val Glu Gln Asp Pro Gly Ile Ser Val Val Pro Gly Leu Asn
```

Thr	Ala	Arg	Ile	Ala	Ser	Ser	Pro	Leu	Ala	Ser	Ser	Pro	Pro	Lęu
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Leu	Ser	Arg	Ala	Pro	Pro	Рго	Ser	Pro	Pro	Ser	Gly	Pro	Glu	Thr
210					215					220				
Glu	Ala	Ala	Ala	Leu	Phe	Ser	Arg	Glu	Cys	Arg	Pro	Ser	Pro	Ala
				230					235					240
Leu	Gly	Ala	Leu	Arg	Val	Met	Leu	Trp	Val	Thr	Thr	Ala	Туг	Phe
			245	•									255	
Leu	Pro		Leu	Cys	Leu	Ser	He	Leu	Tyr	Gly	Leu	Ile	Gly	Arg
							265					270		
Leu		Ser	Ser	Arg	Arg	Pro	Leu	Arg	Gly	Pro	Ala	Ala	Ser	Gly
						280					285			
	Arg	Gly	His	Arg		Thr	Val	Arg	Val	Leu	Leu	Val	Val	Val
										300				
Ala	Phe	Ile	He		Trp	Leu	Pro	Phe		Val	Gly	Arg	Ile	Ile
										,	•			320
He	Asn	Thr		Asp	Ser	Arg	Met		Tyr	Phe	Tyr	Gln	Tyr	Phe
r1.	w. 1			•			_							
116	vai		Leu	Gln	Leu	Phe		Leu	Ser	Ala	Ser		Asn	Pro
•	. .					_		_						
Leu		Asn	Leu	He	Ser		Lys	Туг	Arg	Ala		Ala	Phe	Lys
				_			_		٠					
	Leu	Ala	Arg	Lys		Arg	Pro	Arg	Gly		His	Arg	Ser	Arg
Inr	Ala	Gly	Glu		Ala	Gly	Asp	Thr		Gly	Asp	Thr		Gly
mı	01	mı	_				_						400	
Inr	Glu	Thr		Ala	Asn	Val	Lys		Met	Gly				
			405					410						
	Leu 210 Glu Leu Leu Glu 290 Ala Ile Leu Leu Thr	Leu Ser 210 Glu Ala Leu Gly Leu Pro Leu Trp 275 Glu Arg 290 Ala Phe Ile Asn Ile Val Leu Tyr 355 Leu Leu 370 Thr Ala	Leu Ser Arg 210 Glu Ala Ala Leu Gly Ala Leu Pro Phe 260 Leu Trp Ser 275 Glu Arg Gly 290 Ala Phe Ile Ile Asn Thr Ile Val Ala 340 Leu Tyr Asn 355 Leu Leu Ala 370 Thr Ala Gly	Leu Ser Arg Ala 210 Glu Ala Ala Ala Leu Gly Ala Leu 245 Leu Pro Phe Leu 260 Leu Trp Ser Ser 275 Glu Arg Gly His 290 Ala Phe Ile Ile Ile Asn Thr Glu 325 Ile Val Ala Leu 340 Leu Tyr Asn Leu 355 Leu Leu Ala Arg 370 Thr Ala Gly Glu	195 Leu Ser Arg Ala Pro 210 Glu Ala Ala Ala Leu 230 Leu Gly Ala Leu Arg 245 Leu Pro Phe Leu Cys 260 Leu Trp Ser Ser Arg 275 Glu Arg Gly His Arg 290 Ala Phe Ile Ile Cys 310 Ile Asn Thr Glu Asp 325 Ile Val Ala Leu Gln 340 Leu Tyr Asn Leu Ile 355 Leu Leu Ala Arg Lys 370 Thr Ala Gly Glu Val 390 Thr Glu Thr Ser Ala	Leu Ser Arg Ala Pro Pro 210	195 200 Leu Ser Arg Ala Pro Pro Pro 210 215 Glu Ala Ala Ala Leu Phe Ser 230 230 Lcu Gly Ala Leu Arg Val Met 245 245 Leu Pro Phe Leu Cys Leu Ser 260 260 Leu Trp Ser Ser Arg Arg Pro 275 280 Glu Arg Gly His Arg Gin Thr 290 295 Ala Phe Ile Ile Cys Trp Leu 310 310 Ile Asn Thr Glu Asp Ser Arg 325 325 Ile Val Ala Leu Gln Leu Phe 340 325 Leu Tyr Asn Leu Ile Ser Lys 355 360 Leu Leu Ala Arg Lys Ser Arg 370 375 Thr Ala Gly Glu Val Ala Gly 390 390 Thr Glu Thr Ser Ala Asn Val	Leu Ser Arg Ala Pro Pro Pro Ser 210	195	Leu Ser Arg Ala Pro Pro Pro Ser Pro Pro 210	Leu Ser Arg Ala Pro Pro Pro Ser Pro Pro Ser 210	195	195	Leu Ser Arg Ala Pro Pro<